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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,288	02/12/2004	Tomoaki Sugawara	248783US2	3503

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EXAMINER

WALSH, RYAN D

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/776,288	Applicant(s) SUGAWARA ET AL.	
	Examiner Ryan D. Walsh	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/7/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (Pg. 7, Ln. 8) Describes reference number "104" as a sheet feeding section, but is not shown in the drawings. The text in figures 3-5 and the handwritten text in figures 6-9 are informal. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: (Pg. 3, Ln. 10) "eat-resistant" is improper grammar.

Appropriate correction is required.

Claim Objections

Claims 1 and 17 are objected to because of the following informalities: The words "In a" in the opening of each claim is unclear, and should be properly corrected

as "A rotary body" and "An image forming apparatus" respectfully. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 4-13, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Finn et al. (US Pat. # 6,733,943).

Regarding claim 1, Finn et al. teaches, "In a rotary body pressed against a pressing body for conveying a recording medium, carrying a non-fixed toner image formed by a developer (Col. 4, Ln. 28-33), while conveying said recording medium at a nip between said rotary body and said pressing body (Fig. 2, ref. # N), said rotary body comprises an under layer and a resin surface layer comprising a plurality of phases, which include a phase strongly adhering to said under layer and another phase contacting said phase (Col. 6, Ln. 24-63)."

Regarding claim 4, Finn et al. teaches, "wherein at least one phase of said resin surface layer comprises a thermoconductive filler (Col. 7, Ln. 28-36)."

Regarding claim 5, Finn et al. teaches, "wherein at least one phase of said resin surface layer comprises an electroconductive filler (Col. 8, Ln. 13-15)."

Regarding claim 6, Finn et al. teaches, "wherein said phase, strongly contacting said under layer, has a sectional area, which is parallel (Fig. 4, 5 or 6) to a contact portion between said resin surface layer and said under layer within said resin surface layer, than an area of said contact portion (Col. 6, Ln. 35-53)."

Regarding claim 7, Finn et al. teaches, "wherein said resin surface layer has a surface roughness of 5 μm (Col. 9, Ln. 38-46) or below in terms of ten-point surface roughness Rz."

Regarding claim 8, Finn et al. teaches, "wherein heat source is disposed in said rotary body (Col. 6, Ln. 24-26)."

Regarding claim 9, Finn et al. teaches, "A fixing device comprising: a rotary body (Fig. 2, ref. # 24); and a pressing body (Fig. 2, ref. # 28) pressed against said rotary body; said rotary body and said pressing body conveying a recording medium, carrying a non-fixed toner image formed by a multicolor, multilayer developer or monochromatic solid developer (Col. 4, Ln. 28-33), while conveying said recording medium at a nip (Fig. 2, ref. # N) between said rotary body and said pressing body to recording medium; said rotary body comprises an under layer and a resin surface layer comprising a plurality of phases which thereby fix said non-fixed image on said include a phase strongly adhering to said under layer and another phase contacting said phase (Col. 6, Ln. 24-63)."

Regarding claim 10, Finn et al. teaches, "wherein the developer comprises toner containing a parting agent (Col.1, Ln. 52-67 and Col. 2, Ln. 1-4)."

Regarding claim 11, Finn et al. teaches, "wherein a parting agent is coated on a circumference of at least one of said rotary body and said pressing body (Col. 4, Ln. 50-53)."

Regarding claim 12, Finn et al. teaches, "wherein a quotient produced by dividing a pressure F (kgf) acting on the recording medium by an area S (cm²) of a contact portion between said rotary body and said pressing body is 0.5 kgf/cm² or above (Col. 6, Ln. 31-32)."

Regarding claim 13, Finn et al. teaches, "wherein a quotient produced by dividing a pressure F (kgf) acting on the recording medium by an area S (cm²) of a contact portion between said rotary body and said pressing body is 4.0 kgf/cm² or below (Col. 6, Ln. 31-32)."

Regarding claim 17, Finn et al. teaches, "In an image forming apparatus for forming a non-fixed toner image by depositing a developer (Col. 4, Ln. 28-33) on a latent image formed on an image carrier, transferring said non-fixed toner image to a recording medium and fixing said non-fixed toner image on said recording medium with a fixing device, said fixing device comprising: a rotary body (Fig. 2, ref. # 24); and a pressing body (Fig. 2, ref. # 28) pressed against said rotary body; said rotary body and said pressing body conveying the recording medium, carrying the non-fixed toner image while conveying said recording medium at a nip (Fig. 2, ref. # N) between said rotary body and said pressing body; wherein said rotary body comprises an under layer and a resin surface layer comprising a plurality of phases, which include a phase strongly

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adhering to said under layer and another phase contacting said phase (Col. 6, Ln. 24-63)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finn et al. (US Pat. # 6,733,943) in view of Davis et al. (US Pat. # 6,821,626).

Regarding claim 2, Finn et al. teaches, "The rotary body as claimed in claim 1 (102e rejection above)," but fails to show, "wherein at least one phase of said resin surface layer contains fluorocarbon resin."

However, "wherein at least one phase of said resin surface layer contains fluorocarbon resin" is routine in the art as shown by Davis et al. (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Finn et al's invention by having at least one phase of said resin surface layer containing fluorocarbon resin.

The ordinary artisan would have been motivated to modify Finn et al's invention in a manner described above, for at least the purpose of improving the method of toner release in a fusing member.

Regarding claim 3, Finn et al. teaches, "wherein said resin surface layer contains fluorocarbon resin and 5 % to 30 % of poly (ether ether ketone) resin (see Claim 13, where "PEEK" is well known type of polyimide)."

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The opening line in claim 14 does not limit the subject matter, and is not correctly written. Therefore, claims 15-16 are also rejected as being dependent on a previous rejected base claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Walsh whose telephone number is 571-272-2726. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan D. Walsh
Patent Examiner
Art Unit 2852



RENEE LUEBKE
PRIMARY EXAMINER